

## IN THE CLAIMS

1. A packet based closed loop video display interface with periodic status check capability arranged to couple a multimedia source device and a multimedia sink device, comprising:

an adjustable, high speed main link arranged to carry a number multimedia data packets from the multimedia source device to the multimedia sink device; and

a bi-directional auxiliary channel arranged to provide a number of support functions useful for main link set up and supporting main link operations such as periodically sending a status check of the multimedia display device to the multimedia source device such that the closed loop created by combining the adjustable, high speed main link with the auxiliary channel allows for robust operation of the display interface over a variety of main link conditions.

2. An interface as recited in claim 1 wherein the auxiliary channel also provides information transfer between the multimedia source device and the multimedia display device and vice versa.

3. An interface as recited in claim 2 wherein the information transferred over the auxiliary channel includes a set of packet attributes.

4. An interface as recited in claim 2 wherein the information transferred over the auxiliary channel includes auxiliary application data such as USB traffic.

5. An interface as recited in claim 2 wherein the information transferred over the auxiliary channel includes results of training sessions.

6. An interface as recited in claim 1, wherein the display device can inform the source device of events such as sync loss and/or dropped packets over the auxiliary channel.

7. A method of providing a packet based closed loop video display interface with periodic status check capability arranged to couple a multimedia source device and a multimedia sink device, comprising:

carrying a number multimedia data packets from the multimedia source device to the multimedia sink device over an adjustable, high speed main link; and

providing a number of support functions useful for main link set up and supporting main link operations on a bi-directional auxiliary channel, wherein the supporting main link operations include periodically sending a status check of the multimedia display device to the multimedia source device and wherein the closed loop created by combining the adjustable, high speed main link with a very reliable auxiliary channel allows for robust operation of the display interface over a variety of main link conditions.

8. A method as recited in claim 7 wherein the auxiliary channel also provides information transfer between the multimedia source device and the multimedia display device and vice versa.

9. A method as recited in claim 8 wherein the information transferred over the auxiliary channel includes a set of packet attributes.

10. A method as recited in claim 8 wherein the information transferred over the auxiliary channel includes auxiliary application data such as USB traffic.

11. A method as recited in claim 8 wherein the information transferred over the auxiliary channel includes results of training sessions.

12. A method as recited in claim 7, wherein the display device can inform the source device of events such as sync loss and/or dropped packets over the auxiliary channel.

13. Computer program product for providing a packet based closed loop video display interface with periodic status check capability arranged to couple a multimedia source device and a multimedia sink device, comprising:

computer code for carrying a number multimedia data packets from the multimedia source device to the multimedia sink device over an adjustable, high speed main link; and

computer code for providing a number of support functions useful for main link set up and supporting main link operations on a bi-directional auxiliary channel, wherein the supporting main link operations include periodically sending a status check of the multimedia display device to the multimedia source device and wherein the closed loop created by combining the adjustable, high speed main link with a very reliable auxiliary channel allows for robust operation of the display interface over a variety of main link conditions.

14. Computer program product as recited in claim 13 wherein the auxiliary channel also provides information transfer between the multimedia source device and the multimedia display device and vice versa.

15. Computer program product as recited in claim 14 wherein the information transferred over the auxiliary channel includes a set of packet attributes.

16. Computer program product as recited in claim 14 wherein the information transferred over the auxiliary channel includes auxiliary application data such as USB traffic.

17. Computer program product as recited in claim 14 wherein the information transferred over the auxiliary channel includes results of training sessions.

18. Computer program product as recited in claim 13, wherein the display device can inform the source device of events such as sync loss and/or dropped packets over the auxiliary channel.